Docket No. 740756-875 Application No. 08/065,757 Page 3

## **AMENDMENT TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-38. (Canceled)

39. (Currently amended) A superconducting ceramic of the general formula 

in which  $0.1 \le x < 1$ 

$$0.1 \le x' \le 1$$

$$y = 2.5-3.5$$
,

$$y' = 2.5-3.5$$
,

$$z = 1.5-3.5$$
,

$$z' = 1.5-3.5$$
,

$$w = 6.0-8.0,$$

$$w = 6.0-8.0$$

wherein A is one rare earth element, and

each of B and B' is one or more alkaline earth elements, wherein A includes Yb,

- B is at least one alkaline earth element and includes Ba and
- B' is at least one alkaline earth element and includes Sr.
- 40. (Currently amended) A superconducting ceramic of the general formula  $(A_{1,x}B_{x})_{y}Cu_{z}O_{w}\cdot(A_{1,x}B_{x})_{y}Cu_{z}O_{w}\cdot 0.5[(Yb_{1,x}B_{x})_{y}Cu_{z}O_{w}\cdot(Yb_{1,x}\cdot B_{x})_{y}\cdot Cu_{z}\cdot O_{w}\cdot ].$

in which 
$$0.1 \le x < 1$$

$$0.1 \le x' \le 1$$

$$y = 2.5-3.5$$

$$y' = 2.5-3.5$$
,

$$z = 1.5-3.5$$
,

$$z' = 1.5-3.5$$
,

$$w = 6.0-8.0$$

$$w = 6.0-8.0$$

Docket No. 740756-875 Application No. 08/065,757

wherein A is one rare earth element, and

each of B and B' is one or more alkaline earth elements, wherein A includes Yb.

B is at least one alkaline earth element and includes Ba and

B' is at least one alkaline earth element and includes Sr and Ca.

41. (Currently amended) A superconducting ceramic of the general formula  $\frac{(A_{1:x}B_{x})_{y}Cu_{z}O_{w}\cdot(A_{1:x}B'_{x}\cdot)_{y}\cdot Cu_{z}\cdot O_{w}\cdot \underbrace{0.5[(Y_{1:x}Yb_{1:x}B_{x})_{y}Cu_{z}O_{w}\cdot(Y_{1:x}\cdot Yb_{1:x}\cdot B'_{x}\cdot)_{y}\cdot Cu_{z}\cdot O_{w}\cdot]_{,}}_{\text{in which }0.1 \leq x < 1}$ 

$$0.1 \le x' \le 1$$

$$y = 2.5-3.5$$
,

$$y' = 2.5-3.5$$
,

$$z = 1.5-3.5$$
,

$$z' = 1.5-3.5$$
,

$$w = 6.0-8.0$$
,

$$w'=6.0-8.0$$
,

wherein A is one rare earth element, and

each of B and B' is one or more alkaline earth elements; wherein A-includes Y and Yb;

B is at least one alkaline earth element and includes Ba and

B' is at least one alkaline earth element and includes Sr.

42. (Currently amended) A superconducting ceramic of the general formula  $(A_{1,x}B_{x})_{y}Cu_{x}O_{w}:(A_{1,x}B'_{x})_{y}Cu_{x}O_{w}:(A_{1,x}B'_{x})_{y}Cu_{x}O_{w}:(Y_{1,x}Yb_{1,x}B'_{x})_{y}Cu_{x}O_{w}:),$  in which  $0.1 \le x < 1$ 

$$y = 2.5-3.5$$

$$y' = 2.5-3.5$$
,

$$z = 1.5-3.5$$

$$z' = 1.5-3.5$$
,

$$w = 6.0-8.0$$

$$w = 6.0-8.0$$

Docket No. 740756-875 Application No. 08/065,757 Page 5

## wherein A is one rare earth element, and

each of B and B' is one or more alkaline earth elements,

wherein A includes Y and Yb,

B is at least one alkaline earth element and includes Ba and

B' is at least one alkaline earth element and includes Ca.

43 - 44. (Canceled)

- 45. (Previously presented) A superconducting ceramic having the stoichiometric formula YbBaSrCu<sub>3</sub>O<sub>6-8</sub>.
- 46. (Previously presented) A superconducting ceramic having the stoichiometric formula YbBa<sub>0.7</sub>Sr<sub>0.7</sub>Ca<sub>0.6</sub>Cu<sub>3</sub>O<sub>6-8</sub>.
- 47. (Previously presented) A superconducting ceramic having the stoichiometric formula Y<sub>0.5</sub>Yb<sub>0.5</sub>BaSrCu<sub>3</sub>O<sub>6.8</sub>.
- 48. (Previously presented) A superconducting ceramic having the stoichiometric formula Y<sub>0.5</sub>Yb<sub>0.5</sub>BaCaCu<sub>3</sub>O<sub>6-8</sub>.
- 49. (Canceled)
- 50. (Canceled)